

and, after the high frequency, decrease in amplitude as per increasing frequencies toward the high end, and the reference frequency separates the band of frequencies into a band of high frequencies and a band of low frequencies, whereby an enhanced audio signal is produced such that audible sound reproduced from the enhanced audio signal exhibits a perceptively improved harmonic quality and sound source separation compared to audible sound reproduced from the input audio signal.

35. (Three Times Amended) A method of enhancing the quality of electronic audio signals, comprising the steps of:

providing an input audio signal having a band of frequencies with a high end and a low end; and

distorting the input audio signal so as to increase in amplitude as per increasing frequencies from a reference frequency up to an amplitude peak at a high frequency and, after the high frequency, decrease in amplitude as per increasing frequencies toward the high end, and the reference frequency separates the band of frequencies into a band of high frequencies and a band of low frequencies, whereby an enhanced audio signal is produced such that audible sound reproduced from the enhanced audio signal exhibits a perceptively improved harmonic quality and sound source separation compared to audible sound reproduced from the input audio signal.

40. (Twice Amended) An apparatus for enhancing the quality of an input audio signal having a band of frequencies with a high end and a low end, said apparatus comprising:

a circuit operatively adapted such that when an input audio signal having a frequency band with a high end and a low end is transmitted therethrough, the input audio signal is distorted so as to increase in amplitude as per increasing frequencies from a reference frequency toward the high end and up to an amplitude peak at a high frequency and, after the high frequency, decrease in amplitude as per increasing frequencies toward the high end, and so as to increase in amplitude as per decreasing frequencies from the reference frequency toward the low end and up to an amplitude